

BUREAU OF ENVIRONMENT CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting

DATE OF CONFERENCE: July 15, 2020

LOCATION OF CONFERENCE: John O. Morton Building

ATTENDED BY:

NHDOT

Sarah Large
Matt Urban
Ron Crickard
Mark Hemmerlein
Tim Boodey
Arin Mills
Heidi Stortz

ACOE

Mike Hicks

EPA

Beth Alafat

**Federal Highway
Administration**

Jaimie Sikora

NHDES

Lori Sommer
Karl Benedict

NHB

Amy Lamb

NH Fish & Game

Carol Henderson

The Nature Conservancy

Pete Steckler

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH: *(minutes on subsequent pages)*

Meeting Minutes.....	2
Goffstown, #42840.....	2
Jefferson, #43078.....	3
Northwood, #43077.....	5

(When viewing these minutes online, click on a project to zoom to the minutes for that project.)

NOTES ON CONFERENCE:**Meeting Minutes**

Finalized and approved the June 17, 2020 meeting minutes.

Goffstown, #42840

Arin Mills, NHDOT Environmental Manager, presented the location of the project as bridge 054/116 which carries NH 114 over Gorham Pond Brook in Goffstown. This is a state funded and state executed project. Gorham Pond Brook flows approximately 6.6 miles from the headwater in Dunbarton to the site, adjacent to the convergence with the Piscataquog River. The bridge was constructed about 1972 with the re-alignment of NH 114 to the now more southern alignment. The As-Built plan from 1972 was shown which depicts the original construction with a paved outlet channel. The surrounding landscape was described as rural/residential, with historic Parker Station just to the north. A map was shown with the surrounding conservation lands, to include Piscataquog Land Conservancy and Hopkinton-Everett Flood Control lands nearby the site. Photos were displayed of the both the existing conditions of the inlet/outlet and upstream/downstream.

Tim Boodey, NHDOT Bridge Maintenance, described the project to include installation of a reinforced concrete invert in the bottom of the existing corrugated metal culvert, installation of 2' deep cut off/curtain wall at both inlet and outlet, clearing of brush from the wing walls and repair of existing mortar rubble masonry (MRM) wings. Some brush will include removal of trees greater than 3" in diameter. Tim showed preliminary plans and described the anticipated wetlands impacts, to include permanent impacts for the cut off walls at the inlet and temporary impacts for brush clearing at inlet and outlet. All work in stream can be done by hand, with no equipment in the stream. No proposed rip rap, and use of existing rocks in the streambed. Tim described the existing rocks at the stream outlet (and inlet) are 10-14" above the existing invert and allow water to naturally pool and decrease velocity at the outlet of the bridge. The 6" invert, once installed, will not be above the highest rock at the outlet and will not generate a perched condition.

Arin further described some resources of Gorham Brook based on her review. Gorham Brook is a 3rd order stream, while the Piscataquog River is 4th order stream and under the jurisdiction of the Shoreland Water Quality Protection Act (SWQPA). The Piscataquog River is also a Designated River and comments were solicited from the Local Advisory Committee (LAC). The LAC asked about the creation of a perched condition and impacts to aquatic organism passage as well as decrease in hydraulic capacity, which the DOT said they would take the comments into consideration and would be sure this was addressed in the final wetland application package. The stream is a Tier 3 crossing, with a watershed of 4,174 acres. No previous permits were identified for the site by DES.

Arin further described that both the Piscataquog and Gorham Brook are both predicted warm water streams. A NHB review (NHB20-1159) determined no anticipated impacts to species. US Fish & Wildlife Coordination determined potential for Northern long-eared bat and small whorled pogonia. A 4(d) consistency has been generated and a field review did not locate any species or appropriate habitat for the pogonia within the project area. A Section 106 review for cultural resources determined 'No Potential to Cause Effect'. A FEMA map was shown, depicting the site within a 100-year flood zone with Floodway.

Sarah asked Tim for clarification that no permanent impacts are anticipated at the outlet with the installation of the curtain wall as the end of the pipe would be removed, and no length would be added. Tim concurred. Sarah also clarified that no work in the stream is necessary, Tim also concurred.

Karl Benedict requested a longitudinal profile be provided with the application to help show the impacts to flow conditions once install, specifically at low flow conditions. Tim responded that he can include that, and can extend it outside the pipe at the outlet to help show how the existing rocks are influencing the flow at the outlet. Karl also asked a narrative be included with the application, as he is most concerned with the outlet conditions during low flow once installed. Karl also would like the hydraulic analysis to provide details of the ability of the crossing to pass a 100-year flood event. Karl lastly asked DOT to coordinate with NH Fish & Game regarding impacts to trout passage in the area, as it is known trout inhabit this area. Sarah requested concurrence a 904.09 (rehab/repair of an existing Tier 3 stream) is the appropriate stream crossing rules to address with the proposed work which will include hydraulic analysis, Karl concurred.

Lori Sommer asked that the SADES data be reviewed and provided with the permit application. She does not anticipate mitigation required, although likely will request a follow-up report to describe impacts to fish passage post construction. She further requested data regarding fish species in the area be gathered for potential monitoring post construction. She asked if a dam is in the area and the info was not readily known at the time. Arin said she could look into that data and provide in application.

Carol Henderson asked for clarification on the water diversion, specifically the clean water bypass. Tim clarified the work would be done in two phases, with one side being worked at a time. Carol asked the river be closed off early to prevent impacts to trout spawning, which generally begins around October 1st. She asked the cofferdam be installed ahead of spawning, which is generally late September to December. Tim explained the work is proposed in the winter months and can include timing in the application package.

Mike Hicks said no Essential Fish Habitat (EFH) review needed as Gorham Brook is not on EFH list. He also said he would coordinate internal for a Section 408 review for impacts for a project adjacent to Army Corp lands, he would reach out if more was needed for this review.

Beth Alafat concurred with Mike H and Lori S review. Amy Lamb had no comment. Pete Steckler noted the site is identified as a Herring stock location/migratory path according to the Aquatic Restoration Mapper. Jaimie Sikora asked about US Coast Guard navigation review. Arin noted the review was complete with no concerns.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Jefferson, #43078

Arin Mills, NHDOT Environmental Manager, presented the location of the project as bridge 109/061 which carries NH 115 over Red Brook in Jefferson. This is a state funded and state

executed project. Red Brook flows approximately 2.3 miles from the headwater in Low-Burbanks Grant (Hardwood Ridge) to the site, where it then flows 1.3 miles to the convergence with the Isreal River. The bridge was constructed about 1983 with the re-alignment of NH 115. The As-Built plan from 1983 was shown which depicts the changes from the serpentine alignment to the straightened alignment post construction. The surrounding landscape was described as rural/residential, with largely undeveloped private land surrounding the site. No conservation lands surround the site. Photos were displayed of the both the existing conditions of the inlet/outlet and upstream/downstream.

Tim Boodey, NHDOT Bridge Maintenance, described the project to include removal of excess material both upstream and downstream of the culvert, replacement of Mortar Ruble Masonry (MRM) headwalls with reinforced concrete, installation of a 6" invert and installation of low-flow weir at outlet. The work will remove the bridge from the State 'Red List'. Tim said there is no evidence the Brook had moved over time, and the dredging will restore capacity of the bridge. A draft impact plan was shown for both temporary and permanent impact areas. Tim said the work is anticipated to start in September/October, with slope work being complete first. Cofferdams and bypass pipe will be installed ahead of headwall replacement, then the invert will be installed. Tim said a hydraulic summary will be included with the application, although preliminary evaluation indicate the structure will pass the 100-year storm event before and after construction. It was described the sediment removal will reduce velocity entering the culvert, and the low-flow weir will allow water to back-up at the outlet. No evidence of flooding at this location.

Arin further described some resources of Red Brook based on her review. Red Brook is a 2nd order stream to the convergence with Isreal River. StreamStats identified the watershed of 888 acres, making it a Tier 3 crossing. No Designated River, and no previous permits identified. The Wildlife Action Plan identified the Brook as predicted cold-water. No recorded species occurrence per NHB review NHB20-1882. No Priority Resource Areas (PRA) in or adjacent. Site is within 100-year FEMA floodplain. US Fish & Wildlife Service species list determined potential Northern long-eared bat and Canada lynx. 4(d) consistency generated for bat and no impact to habitat for Canada lynx. Cultural resource review has concluded no concerns.

Karl Benedict asked a longitudinal profile be provided with the application. He stated post construction monitoring may be requested to assess the weir. Karl also asked the delineation be reviewed, and Sarah said she had visited the site recently and will review the delineation and be sure it is provided with the application plans and impacts. Karl asked velocity calculations be reviewed.

Lori Sommer asked about the construction material of the weir. Tim said it would be constructed of granite curb, and tied (embedded) into the streambed. Lori also said she may want monitoring post construction for the weir.

Carol Henderson said the Sept/Oct timeline looked good for work start as impacts for trout spawning, and to coordinate with Fish & Game if there is a delay.

Mike Hicks said no Essential Fish Habitat (EFH) review needed. He asked for clarification on use of dredged material and Tim said it would be spread and seeded within the ROW and outside jurisdictional area. Mike said a memo of site visit can cover pogonia review.

Beth Alafat asked about observations of invasives and Arin said a site review found no invasives in the project area and was found to be good pollinator habitat. Pete Steckler had no comment.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Northwood, #43077

Heidi Stortz, NHDOT Environmental Coordinator, presented the location of the project as bridge 045/099 which carries NH 107 over Narrows Brook in Northwood. This is a state funded and state executed project. Narrows Brook flows approximately 1.2 miles from headwaters to the site, where it then flows 0.25 miles into Northwood Lake. The bridge was constructed about 1922. The surrounding landscape was described as rural/residential. No conservation lands surround the site. Photos were displayed of both the existing conditions of the inlet/outlet and upstream/downstream. Tim Boodey, NHDOT Bridge Maintenance, described the project to include replacement of center portion of concrete slab deck, replace rip rap for structure protection at two wings, remove toe wall and repair abutments in kind. The work will remove the bridge from the State 'Red List'. Tim said the work is anticipated to start in September/October. Tim said a hydraulic summary will be included with the application, although preliminary evaluation indicate the structure will pass the 100-year storm event before and after construction. No evidence of flooding at this location. Heidi further described some resources of Red Brook based on her review. Red Brook is a 2nd order stream that flows into Northwood Lake. StreamStats identified the watershed of 5,900 acres, making it a Tier 3 crossing. No Designated River, and no previous permits identified. The Wildlife Action Plan identified the Brook as predicted warm water. NHB review NHB20-2230 was submitted subsequent to the meeting. Spotted Turtle was identified as occurring in the vicinity. No Priority Resource Areas (PRA) in or adjacent. Site is within 100-year FEMA floodplain. US Fish & Wildlife Service species list determined potential Northern long-eared bat and small whorled pogonia. 4(d) consistency generated for bat and no impact small whorled pogonia. Cultural resource review has concluded no concerns.

Karl Benedict asked for a plan to show existing versus proposed areas of rip rap. Karl also asked about the balance of structural stability with vegetated banks. Tim said they will be leaving the riprap bare immediately at the interface with the bridge. Karl asked about access and if there is going to be a bypass or water diversion. Tim said they will be working from above and that a clean water bypass was not needed for staging. Karl would like a water diversion for the repair to the abutment through the bridge.

Lori Sommer indicated that no mitigation would be required so long as the riprap was existing/ previously existed; which Tim agreed was the case.

Mike Hicks said he concurred with project as proposed.

Beth Alafat concurred with comments.

Pete Steckler mentioned the stream is identified as a Herring stock location.

Carol Henderson stated that there are anadromous fish and the time of year that is proposed for the work she doesn't have any concerns.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.